

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (currently amended): A synthetic peptide comprising the amino acid sequence GPRLGYSWHX (SEQ. ID. No. 3), wherein each of the amino acids are in the D-amino ~~acids~~ acid configuration and X is any amino acid.

Claim 2 (previously presented): The peptide according to claim 1, wherein X is E, Q, P or G.

Claim 3 (previously presented): The peptide according to claim 1 comprising the amino acid sequence GPRLGYSWHE (SEQ ID NO:1).

Claim 4 (currently amended): The peptide according to claim [[32]] 1, ~~wherein the~~ further comprising a D-amino acid residue is a cysteine residue at the C-terminus end.

Claim 5 (currently amended): The peptide according to claim [[4]] 1, comprising the amino acid sequence GPRLGYSWHEC (SEQ ID NO:2).

Claim 6 (previously presented): A vaccine composition capable of eliciting an immunological response in an animal to which it is administered, the composition comprising:

- (a) an immunogenic peptide according to claim 1; and
- (b) a pharmaceutically acceptable carrier or excipient.

Claim 7 (previously presented): The vaccine composition according to claim 6, wherein the peptide is not conjugated to or administered with a carrier or an adjuvant.

Claim 8 (previously presented): The vaccine composition according to claim 6, wherein the peptide is conjugated to or administered with at least one carrier or adjuvant.

Claim 9 (previously presented): The vaccine composition according to claim 8, wherein the adjuvant is selected from the group consisting of CpGs, M59, IFA (incomplete Freund's adjuvant), complete Freund's adjuvant, alum, bile salts, vitamins and attenuated toxins.

Claim 10 (previously presented): The vaccine composition according to claim 9, wherein the attenuated toxins are selected from pertussis and cholera.

Claim 11 (previously presented): The vaccine composition according to claim 6 for use in a method of contraception or for controlling fertility or heat in an animal.

Claim 12 (cancelled)

Claim 13 (previously presented): The vaccine composition according to claim 6 wherein the animal is a human, a domestic animal, a wild animal, livestock or a fish.

Claim 14 (cancelled)

Claim 15 (cancelled)

Claim 16 (previously presented): The vaccine composition according to claim 6 which is administered orally, nasally, sub-cutaneously or trans-cutaneously to the animal.

Claim 17-27 (cancelled)

Claim 28 (previously presented): The peptide according to claim 1 which is conjugated to another peptide.

Claim 29 (previously presented): The peptide according to claim 28, which is conjugated to the natural gonadotropin-releasing hormone (GnRH) peptide.

Claim 30 (previously presented): The peptide according to claim 1, wherein X is Q.

Claim 31 (currently amended): A peptide according to claim 1, which further comprises [[a]] an additional D-amino acid residue at the N- or C-terminus.

Claim 32 (currently amended): The peptide according to claim 1 ~~31~~, ~~wherein the~~ further comprising a D-amino acid residue is a cysteine residue or a glycine residue at the N- or C-terminus.